Protocol for Flash Freezing Sample with Liquid Nitrogen and Homogenizing in a Nutribullet.

- 1. Take sample and cut into smaller pieces roughly ½ inch square
- 2. Place sample pieces into cryo bucket filled with liquid N in a strainer
- 3. Once the boiling has stopped, pull the strainer from the liquid N bath and let any residual liquid drain back into the bucket
- 4. Take frozen pieces and place in the blender cup of the appropriate size (12 or 32 oz)
- 5. If a great deal of vapor is still escaping from the frozen sample DO NOT place the blades on the blender cup and begin homogenizing, WAIT for the amount of vapor to lessen significantly
- 6. Securely screw the base with the blades into the cup and place on the blender base
- Initially pulse the blender cup to make sure that there is not a dangerous buildup of gas in the cup – you will feel a tightness to the plastic if there is too much gas in the cup. If you do feel a tightness, take the base off the cup and let more vapor escape.
- 8. Once you are sure it is safe to proceed, you can blend continuously until your sample is pure powder
- 9. Remove the cup from the base of the blender, remove the blades and transfer your sample to a whirlpak bag or other container